

## **Who Inspects**

A CESCL is required to inspect all construction sites larger than an acre for NPDES permit compliance.

- CESCLs must inspect disturbed areas, BMPs and discharge points at least once per calendar week and within 24 hours of a discharge
  - Discharges that last more than one day need only be inspected once per week





### What to Inspect?

- Areas disturbed by construction activities
  - Signs of erosion or potential erosion
- **BMPs** 
  - Performance (adequate for conditions?)
  - Maintenance (sediment buildup, wear & tear)
- Stormwater discharge points
  - Suspended sediment, turbidity, oil sheen







**Indication of Slope Failure Under the Blanket** 





## **Inspection Report Requirements**

Each inspection report or checklist shall include:

- a. Inspection date and time.
- b. Weather information; general conditions during inspection and approximate amount of precipitation since the last inspection, and within the last 24 hours.
- c. A summary or list of all BMPs which have been implemented, including observations of all erosion/sediment control structures or practices.
- d. The following shall be noted:
- i. locations of BMPs inspected,
- ii. locations of BMPs that need maintenance,
- iii. the reason maintenance is needed,
- iv. locations of BMPs that failed to operate as designed or intended, and locations where additional or different BMPs are needed, and the reason(s) why.

#### **Inspection Report Requirements - cont.**

- e. A description of stormwater discharged from the site. The inspector shall note the presence of suspended sediment, turbid water, discoloration, and/or oil sheen, as applicable.
- f. Any water quality monitoring performed during inspection.
- g. General comments and notes, including a brief description of any BMP repairs, maintenance or installations made as a result of the inspection.

Records and SWPPP's must be kept for 3 Years after N.O.T.

# **Site Inspection Checklist**

Construction Stormwater SITE INSPECTION CHECKLIST Project: Permit No. Inspector Date Time								
Site BMPs		Overall			ed air?			
Clearing Limits	$\top$		-					
·Buffer Zones around sensitive areas	G	F	P	Y	N	A Charles Indianated		
	G	E	P	Y	N	Tank management of the last		
	G	F	P	Y	N	Many artists founded		
Construction Access/Roads								
Stabilized site entrance	G	E	P	Y	N			
Stabilized roads/parking area	G	F	P	Y	N			
	G	F	Р	Y	N			
Control Flow Rates	-	-	-		- 11			
• Swale	G	F	P	Y	N	low has exceed by His-7		
• Dike	G	F	P	Y	N	1000		
Sediment pond	G	F	p	Y	N	80/10/0		
Sediment trap	G	F	P	Ý	N	AND AND AND ADDRESS OF THE PARKS.		
- Зачинем и ар	G	F	P	Ý	N	UK-105205 sep-19		
	G	F	P	Ÿ	N	The state of the s		
	6	P.	Р	Y	N			
nstall Sediment Controls	12	100		100				
Sediment pond/trap	G	F	P	Y	N	Control of the Control		
Silt fence	G	F	P	Y	N	ME HISTORY		
Straw bale barriers	G	F	P	Y	N			
	G	E	P	Y	N	durthern Committee		
and I depose the state of the same	G	F	P	Y	N	CONTRACTOR CO.		
The same of the same of the same	G	F	P	Y	N			
Preserve Vegetation/Stabilize Soils			-		- 77.0			
Nets and blankets	G	F	p	Y	N			
Mulch	G	F	P	Y	N			
Seeding	G	F	P	Y	N			
	G	F	P	Y	N			
	G	F	Р	Y	N	200 (2007)		
Protect Slopes	-	-	-	-	-			
Terrace	G	F	р	Y	N	YESTER TOTAL SEALER		
Pipe slope drains	G	F	P	Ý	N	OFFICE STORY		
r po angre urama	G	F	P	Ý	N	And American and American		
	G	F	P	Y	N			
Protect Drain Inlets	9	-	-	1	IV			
	-	-	-					
Inserts	G	F	Р	Y	N			
	G	F	Р	Y	N			
	G	F	Р	Υ	N			
Stabilize Channels and Outlets	1		140		100			
Conveyance channels	G	F	P	Y	N.			
Energy dissipators	G	F	P	Y	N			
	G	F	P	Y	N	El-II among an hollyway amount		
Control Pollutants								
Chemical Storage Area covered	G	F	P	Y	N.			
Concrete handling	G	F	P	Ý	N	The state of the s		
	G	F	p	Ý	N			
Control De-watering	10	-	-		14			
Solition De-watering	0	1	Р	Y	100			
	G	F	P	1	N			

	11,000,000	struction Store	3.100 A TO	
Project:	Permit No	Inspector	Date	Time_
Vill existing E	MPs need to be mod	ified or remove	d, or other BMPs ins	stalled? YES NO
IF YES	S, list the action items	to be complete	d on the following ta	
	Actions to b	e Completed		Date Completed/ Initials
1.		- 22	s/pmss.sm	THE SHIPLING
2.		entre troo F		and represent
3.		April 1999		
4.				
5,				
6.		or Parent (		The state of
escribe cum	ent weather condition	s		
sediment, *ck Was water qu	charging stormwater, it oudiness*, discoloration uality monitoring part of record results below (	on, or oil sheen.	n? YES NO	
Parameter:	Method (circle one)	Result	Units	():
Turbidity	tube, meter, laboratory		4 (PR) 1 (	n:
pH			NTU (cm, if tube t	
	paper, kit, meter		pH standard units	used)
s the site in a If no, i Comp If no, i If no, s Sign the folio "I certi	compliance with the Sindicate tasks necessaleted table above, and task the non-compliance should the SWPPP be wing certification:  fy that this report is true.	ry to bring site d include dates te been reporte modified: YES	pH standard units permit requirements into compliance on each job WILL BE ( d to Dept. of Ecolog NO	s? YES NO the "Actions to be COMPLETED. y? YES NO
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# Inspection: What Next?



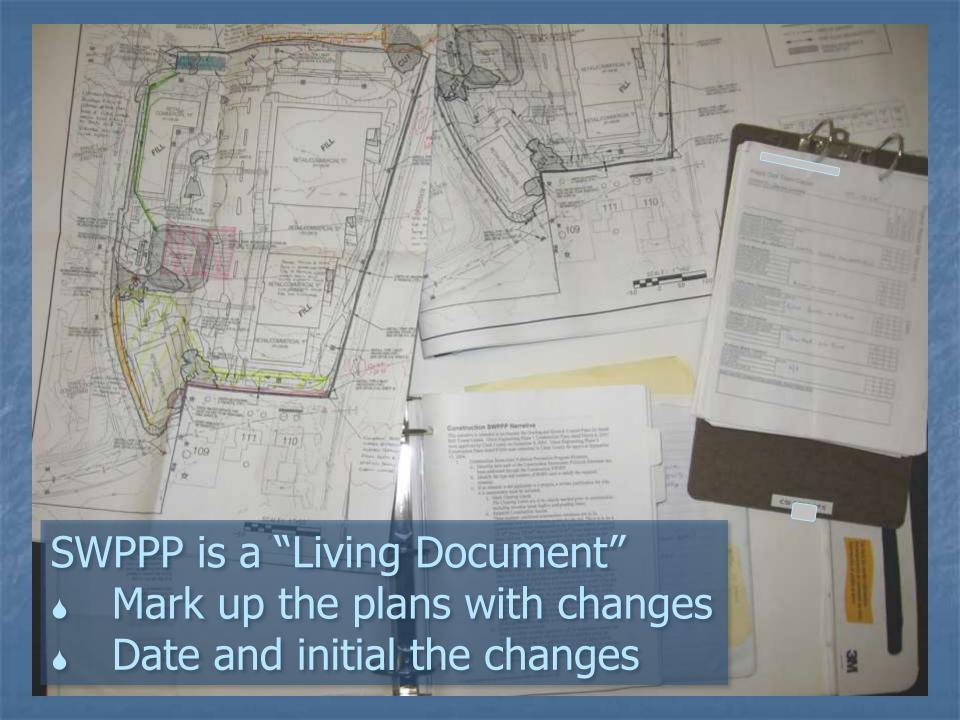
- Review SWPPP for permit compliance
- Change SWPPP within 7 days if necessary
- Implement / maintain BMPs within 10 days
- Document BMP maintenance/addition in log book

# Site Log Book

- Keep 4 items in binder:
  - Permit
  - Permit coverage letter
  - SWPPP and changes
  - Site log book
- On-site or within reasonable access.
- Log book includes inspection reports, SWPPP changes, and monitoring results.
- Records (SWPPPs, inspection reports, sampling records, etc.) must be kept for 3 years

## **Log Book Entries**

- Date, place, method, and time of sampling or inspection
- Name of person doing sampling/inspection
- Observations made during inspection
- Any maintenance performed
- Dates samples were analyzed
- Analytical methods used
- Results of analysis



# Discharge Monitoring Reports

- If you are required to take samples, you must submit DMRs
  - Monthly
  - Electronic submittal unless otherwise approved by Ecology
- If you have no discharges, you must still submit a form stating "no discharges."
- Ecology must receive the DMR within 15 days after the end of the month

# Where Do We Sample Turbidity?

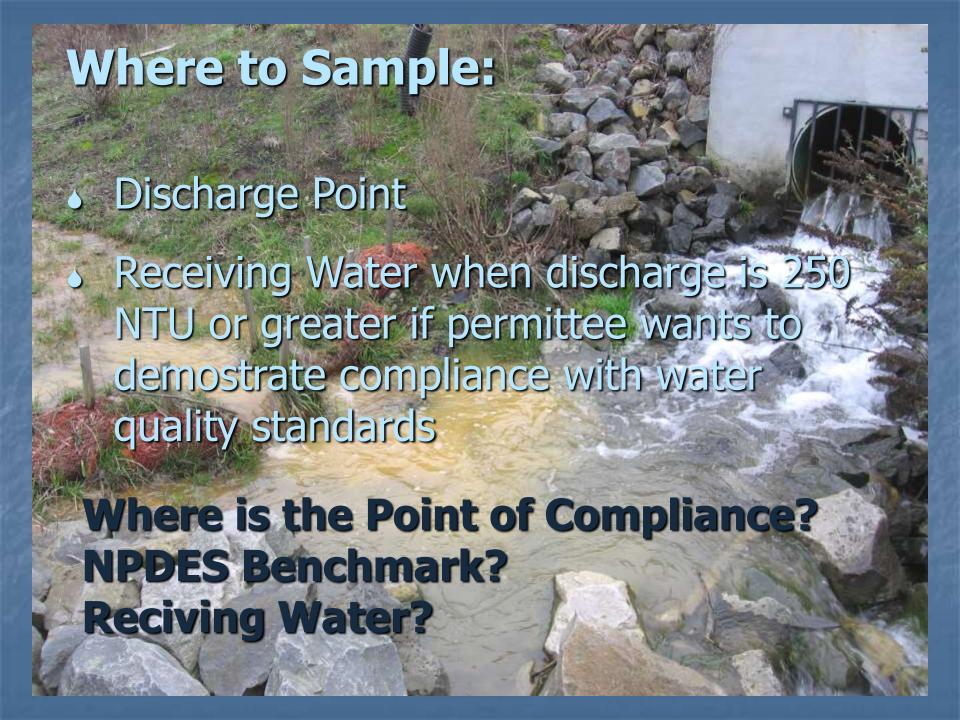
#### At All Points of Stormwater Discharge:

- Ditches; excavate small sump if needed
- Pipe or pond outfalls
- Detention ponds/other BMPs
- Catch Basins; scoop from gutter
- Vegetated areas; construct trench to collect discharge
- Paved areas; use speed bumps to collect stormwater samples
- As close to discharge point as safe and reasonable
- Remember to Flag it in the field & Mark on SWPPP site map!!!

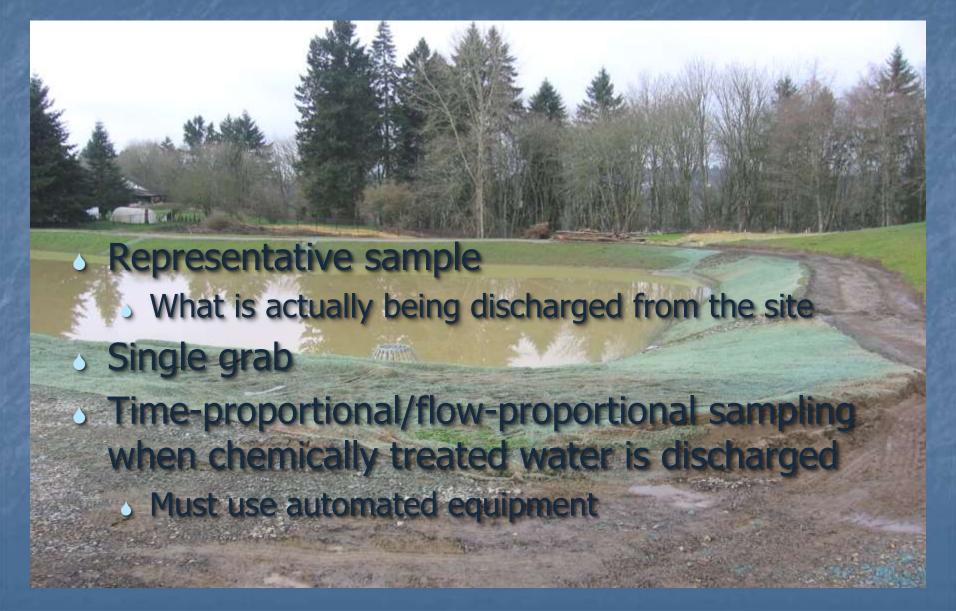


# When Do We Sample?





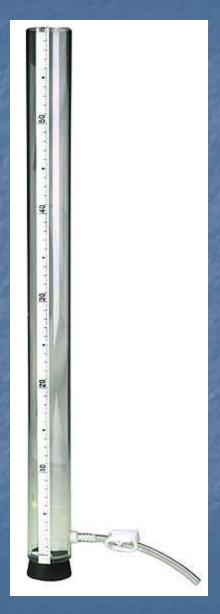
# **How To Sample?**





# **Transparency Tube**





# Transparency of B/W Markings at Bottom Shows Turbidity Level









#### **Turbidity Monitoring Benchmark 26-249 NTU**

If discharge turbidity is greater than 25 NTU, but less than 250 NTU; or if discharge transparency is less than 33 cm, but greater than 6 cm, the CESCL shall:

Review the SWPPP for compliance with Condition S9 and make appropriate revisions within 7 days of the discharge that exceeded the benchmark; and

Fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, but within 10 days of the discharge that exceeded the benchmark; and

Document BMP implementation and maintenance in the site log book.

# **Turbidity Monitoring When Discharge Exceeds 250 NTU Benchmark**

If discharge turbidity is greater than or equal to 250 NTU; or if discharge transparency is less than or equal to 6 cm, the CESCL shall notify Ecology by phone or electronically within 24 hours plus

Review the SWPPP for compliance with Condition S9 and make appropriate revisions within 7 days of the discharge that exceeded the benchmark; and

Fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, but within 10 days of the discharge that exceeded the benchmark; and

Document BMP implementation and maintenance in the site log book.

# **Turbidity Monitoring When Discharge Exceeds 250 NTU Benchmark**

#### Continue to sample discharges daily until:

- Turbidity is 25 NTU (or lower); or transparency is 33 cm (or greater); or
- the CESCL has demonstrated compliance with the water quality standard for turbidity in the receiving water; or
- the discharge stops.



### **Turbidity/Transparency Benchmarks Summary**

0- 25 NTU > 33 cm	No action required					
26-249 NTU 32-7 cm	<ol> <li>Review SWPPP for S9 compliance w/in 7 days</li> <li>Implement/maintain source control/treatment within 10 days</li> <li>Document implementation/maintenance</li> </ol>					
250 NTU <6 cm	<ol> <li>Notify DOE</li> <li>Review SWPPP for S9 compliance w/in 7 days</li> <li>Implement/maintain source control/treatment within 10 days</li> <li>Document implementation/maintenance</li> <li>Sample daily until in compliance or discharge ends</li> </ol>					

# When Do We Sample pH?



- Once a week
- Sampling period: from first rain exposure of concrete to pH 8.5 or less

#### **Engineered soils:**

- Once a week
  - Sampling period: from first rain exposure to soil stabilization



# pH Standards for Discharge

pH Monitoring Required when amending soils or pouring > 1000CY

- pH shall be within the range of 6.5 to 8.5 (freshwater) or 7.0 to 8.5 (marine water)
- Human-caused variation less than 0.2 units





- Effects on receiving waters
- Damaged silt fence
- Construction access & track-out
- Discharge points
- Storm drain protection
- Flows leaving the site



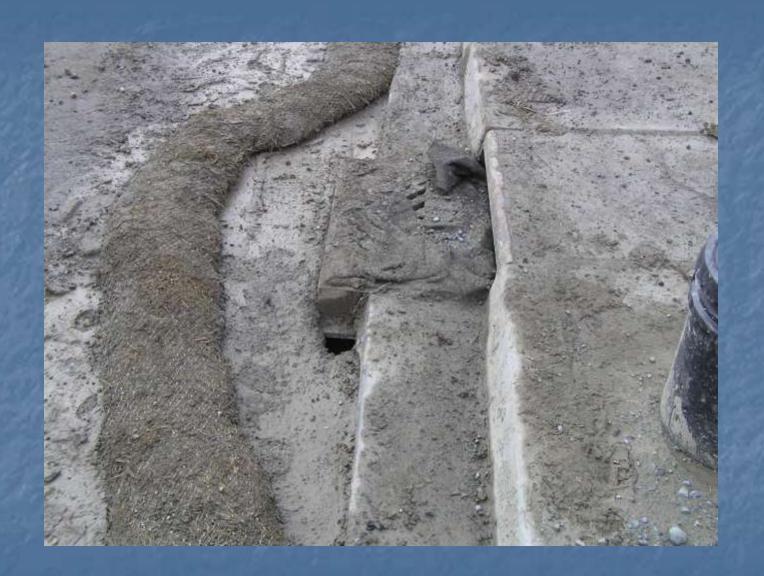












### **Inspection & Monitoring Review**

#### Who?

CESCL does the inspection & monitoring

#### What?

All disturbed areas, BMP's, outfalls, exits, impacted areas

#### When?

Weekly and within 24hr of discharge

#### Where?

Discharge points, BMPs and disturbed areas

#### Why?

Permit requirements & risk management